



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2014-0249; Directorate Identifier 2012-NM-211-AD; Amendment 39-18180; AD 2015-12-06]**

**RIN 2120-AA64**

**Airworthiness Directives; Learjet Inc. Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for certain Learjet Inc. Model 45 airplanes. This AD was prompted by reports of non-conforming windshield supports (coupe rails). This AD requires a general visual inspection of the coupe rails to detect gouging and scratches, and to determine if a radius has been removed; an ultrasound inspection to measure the dimensions of the lower coupe rails; an eddy current inspection to detect cracks of the lower coupe rails; replacement of the lower coupe rails if necessary; and revision of the maintenance or inspection program, as applicable. We are issuing this AD to detect and correct non-conforming windshield supports, which could result in uncontrolled cabin depressurization and compromise of the capability of the windshield to withstand a bird strike.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For service information identified in this AD, contact Learjet, Inc., One Learjet Way, Wichita, KS 67209-2942; telephone 316-946-2000; fax 316-946-2220; email [ac.ict@aero.bombardier.com](mailto:ac.ict@aero.bombardier.com); Internet <http://www.bombardier.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2014-0249.

#### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2014-0249; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The address for the Docket Office (phone: 800-647-5527) is Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Paul Chapman, Aerospace Engineer, Airframe Branch, ACE-118W, FAA, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, KS 67209; phone: 316-946-4152; fax: 316-946-4107; email: [paul.chapman@faa.gov](mailto:paul.chapman@faa.gov).

#### **SUPPLEMENTARY INFORMATION:**

##### **Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain Learjet Inc. Model 45 airplanes. The NPRM published in the Federal Register on April 16, 2014 (79 FR 21416). The NPRM was prompted by reports of non-conforming windshield supports (coupe rails). The NPRM

proposed to require a general visual inspection to detect gouging and scratches and to determine if a radius has been removed; an ultrasound inspection to measure the dimensions of the lower coupe rails; an eddy current inspection to detect cracks of the lower coupe rails; replacement of the lower coupe rails if necessary; and revision of the maintenance or inspection program, as applicable. We are issuing this AD to detect and correct non-conforming windshield supports, which could result in uncontrolled cabin depressurization. Non-conforming windshield supports could also compromise the capability of the windshield to withstand a bird strike.

#### **Explanation of Changes Made to Paragraph (h) of this AD**

We revised paragraph (h) of this AD to state that incorporation of certain tasks into the maintenance or inspection program, as applicable, must be done in accordance with a method approved by the Manager, Wichita Aircraft Certification Office (ACO), ACE-115W, FAA. For informational purposes, we have added new Notes 1 and 2 to paragraph (h) of this AD to refer to the latest maintenance manuals as guidance material for revising the maintenance or inspection program. (Earlier revisions were referenced previously in table 1 to paragraph (h) of the NPRM (79 FR 21416, April 16, 2014)). The change to this AD should allow operators to obtain appropriate versions of maintenance manuals in order to facilitate compliance.

#### **Comments**

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the NPRM (79 FR 21416, April 16, 2014), and the FAA's response to each comment.

#### **Request for Credit for Previous Actions**

Learjet Inc. requested that we revise the NPRM (79 FR 21416, April 16, 2014) to clarify whether actions accomplished using Bombardier Recommended Service Bulletin 40-56-03, dated April 30, 2012; or Bombardier Recommended Service Bulletin 45-56-3,

dated April 30, 2012; is acceptable for compliance with the actions required by paragraph (g) of the NPRM. Learjet Inc. reasoned that many operators have already done those actions using this service information.

We agree to clarify. Actions required by paragraph (g) of this AD, if performed before the effective date of this AD using Bombardier Recommended Service Bulletin 40-56-03, dated April 30, 2012; or Bombardier Recommended Service Bulletin 45-56-3, dated April 30, 2012; as applicable; are acceptable for compliance with the requirements of paragraph (g) of this AD. We have added a new paragraph (j) to this AD to provide credit for these actions. We have redesignated subsequent paragraphs accordingly.

#### **Request to Incorporate Updated Inspection Reference Number (IRN)**

Learjet Inc. requested that we revise table 1 to paragraph (h) of the NPRM (79 FR 21416, April 16, 2014) to allow the incorporation of IRN V5323168, as specified in Bombardier Learjet 45 Maintenance Manual (MM) MM-104, Revision 62; and Bombardier Learjet 40 Maintenance Manual MM-105 Revision 30; both dated June 2, 2014. Learjet Inc. explained that IRN U5323168 was revised to V5323168 in Bombardier Learjet 45 Maintenance Manual MM-104, Revision 62; and Bombardier Learjet 40 Maintenance Manual MM-105, Revision 30; both dated June 2, 2014. Learjet Inc. stated that there were no actual changes to the content of the IRN in Chapter 4 of the MMs, but the “U” was revised to a “V” to coincide with changes to the verbiage in the same IRN in Chapter 5 of those MMs.

As discussed previously, we added new Notes 1 and 2 to paragraph (h) of this AD to refer to the latest revisions of the maintenance manuals, which include references to the appropriate IRNs referenced by the commenter. No additional change to this AD is necessary.

## **Conclusion**

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this AD with the changes described previously and minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM (79 FR 21416, April 16, 2014) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM (79 FR 21416, April 16, 2014).

We also determined that these changes will not increase the economic burden on any operator or increase the scope of this AD.

## **Related Service Information under 1 CFR part 51**

We reviewed Bombardier Recommended Service Bulletin 40-56-03, Revision 1, dated October 15, 2012; and Bombardier Recommended Service Bulletin 45-56-3, Revision 1, dated October 15, 2012. The service information describes procedures for a general visual inspection of the coupe rails to detect gouging and scratches, and to determine if a radius has been removed; an ultrasound inspection to measure the dimensions of the lower coupe rails; an eddy current inspection to detect cracks of the lower coupe rails; and replacement of the lower coupe rails if necessary. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section of this AD.

## **Costs of Compliance**

We estimate that this AD affects 351 airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

### Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection	40 work-hours X \$85 per hour = \$3,400 per inspection cycle	\$77	\$3,477 per inspection cycle	\$1,220,427 per inspection cycle
Maintenance or inspection program revision	1 work hour X \$85 per hour = \$85	None	\$85	\$29,835

We estimate the following costs to do any necessary replacement that would be required based on the results of the inspection. We have no way of determining the number of aircraft that might need this replacement:

### On-condition costs

Action	Labor cost	Parts cost	Cost per product
Replacement	500 work-hours (to replace both coupe rails) X \$85 per hour = \$42,500	\$15,000 (to replace both coupe rails)	\$57,500 (to replace both coupe rails)

According to the manufacturer, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

### Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: “General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

## **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

**2015-12-06 Learjet Inc.:** Amendment 39-18180; Docket No. FAA-2014-0249; Directorate Identifier 2012-NM-211-AD.

#### **(a) Effective Date**

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

None.

#### **(c) Applicability**

This AD applies to Learjet Inc. Model 45 airplanes, certificated in any category, as identified in Bombardier Recommended Service Bulletin 40-56-03, Revision 1, dated October 15, 2012 (for airplanes having serial numbers (S/Ns) 45-2000 through 45-2120 inclusive, and S/Ns 45-2122 through 45-2130 inclusive); and Bombardier Recommended Service Bulletin 45-56-3, Revision 1, dated October 15, 2012 (for airplanes having S/Ns 45-005 through 45-427 inclusive).

#### **(d) Subject**

Air Transport Association (ATA) of America Code 53, Fuselage.

#### **(e) Unsafe Condition**

This AD was prompted by reports of non-conforming windshield supports (coupe rails). We are issuing this AD to detect and correct non-conforming windshield supports,



which could result in uncontrolled cabin depressurization, and compromise of the capability of the windshield to withstand a bird strike.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Inspections and Corrective Actions**

Within 600 flight hours or 36 months after the effective date of this AD, whichever occurs first: Do the inspections specified in paragraphs (g)(1) through (g)(3) of this AD. Do all inspections and corrective actions specified in paragraphs (g)(1) through (g)(3) of this AD, in accordance with the Accomplishment Instructions of Bombardier Recommended Service Bulletin 40-56-03, Revision 1, dated October 15, 2012 (for airplanes having S/Ns 45-2000 through 45-2120 inclusive, and 45-2122 through 45-2130 inclusive); or Bombardier Recommended Service Bulletin 45-56-3, Revision 1, dated October 15, 2012 (for airplanes having S/Ns 45-005 through 45-427 inclusive).

(1) Do a general visual inspection of the coupe rails to detect gouging and scratches and to determine whether a radius has been removed or damaged.

(i) If gouging or scratches are found, before further flight, burnish or blend the gouges and scratches.

(ii) If the radius has been removed or damaged, before further flight, restore the radius.

(2) Do an ultrasound inspection to measure the dimensions of the lower coupe rails.

(i) If the coupe rail has an “X” dimension of 0.246 (6.248 millimeters (mm)) or greater, and a “Y” dimension of 0.148 (3.759 mm) or greater: Before further flight, identify the coupe rail, in accordance with table 1 of Bombardier Recommended Service Bulletin 40-56-03, Revision 1, dated October 15, 2012 (for airplanes having S/Ns 45-2000 through 45-2120 inclusive, and S/Ns 45- 2122 through 45-2130 inclusive); or

Bombardier Recommended Service Bulletin 45-56-3, Revision 1, dated October 15, 2012 (for airplanes having S/Ns 45-005 through 45-427 inclusive).

(ii) If the coupe rail has an “X” dimension between 0.246 (6.248 mm) and 0.166 (4.216 mm) or a “Y” dimension between 0.148 (3.759 mm) and 0.134 (3.403 mm):

Before further flight, identify the coupe rail, in accordance with table 2 of Bombardier Recommended Service Bulletin 40-56-03, Revision 1, dated October 15, 2012 (for airplanes having S/Ns 45-2000 through 45-2120 inclusive, and S/Ns 45- 2122 through 45-2130 inclusive); or Bombardier Recommended Service Bulletin 45-56-3, Revision 1, dated October 15, 2012 (for airplanes having S/Ns 45-005 through 45-427 inclusive).

(iii) If any coupe rail “X” dimension is below 0.166 (4.216 mm) or “Y” dimension is below 0.134 (3.403 mm): Before further flight, replace that coupe rail with a new coupe rail.

(3) Do a flange and radius eddy current inspection for cracks of the left-hand and right-hand lower coupe rails.

(i) If no crack is found, before further flight, mark the new data plate.

(ii) If any crack is found, before further flight, replace the coupe rail with a new coupe rail.

#### **(h) Maintenance/Inspection Program Revision**

Within 30 days after the effective date of this AD: Revise the maintenance or inspection program (as applicable) to incorporate tasks for inspections of the lower coupe rail radius/windscreen retainer attach and replacement of the coupe rails, in accordance with a method approved by the Manager, Wichita Aircraft Certification Office (ACO), ACE-115W, FAA.

Note 1 to paragraph (h) of this AD: For Model 40 airplanes, the instructions provided in Bombardier Learjet 40 Maintenance Manual MM-105, Revision 30, dated June 2, 2014, provide guidance for revising the maintenance or inspection program to include replacements of the coupe rails and maintenance requirements/structure checks of the lower coupe rail radius/windscreen retainer attach. This service information is not incorporated by reference in this AD.

Note 2 to paragraph (h) of this AD: For Model 45 airplanes, the instructions provided in Bombardier Learjet 45 Maintenance Manual MM-104, Revision 62, dated June 2, 2014, provide guidance for revising the maintenance or inspection program to include replacements of the coupe rails and maintenance requirements/structure checks of the lower coupe rail radius/windscreen retainer attach. This service information is not incorporated by reference in this AD.

**(i) No Alternative Actions or Intervals**

After accomplishing the revision required by paragraph (h) of this AD, no alternative IRN task or interval may be used unless the IRN task or interval is approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (k) of this AD.

**(j) Credit for Previous Actions**

This paragraph provides credit for actions required by paragraph (g) of this AD, if those actions were performed before the effective date of this AD using Bombardier Recommended Service Bulletin 40-56-03, dated April 30, 2012 (for airplanes having S/Ns 45-2000 through 45-2120 inclusive, and 45-2122 through 45-2130 inclusive); or Bombardier Recommended Service Bulletin 45-56-3, dated April 30, 2012 (for airplanes

having S/Ns 45-005 through 45-427 inclusive); which are not incorporated by reference in this AD.

**(k) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Wichita ACO, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in paragraph (l)(1) of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

**(l) Related Information**

(1) For more information about this AD, contact Paul Chapman, Aerospace Engineer, Airframe Branch, ACE-118W, FAA, Wichita ACO, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, KS 67209; phone: 316-946-4152; fax: 316-946-4107; email: paul.chapman@faa.gov.

(2) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (m)(3) and (m)(4) of this AD.

**(m) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Bombardier Recommended Service Bulletin 40-56-03, Revision 1, dated October 15, 2012.

(ii) Bombardier Recommended Service Bulletin 45-56-3, Revision 1, dated October 15, 2012.

(3) For service information identified in this AD, contact Learjet, Inc., One Learjet Way, Wichita, KS 67209-2942; telephone 316-946-2000; fax 316-946-2220; email [ac.ict@aero.bombardier.com](mailto:ac.ict@aero.bombardier.com); Internet <http://www.bombardier.com>.

(4) You may view this service information at FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Renton, Washington, on June 3, 2015.

Jeffrey E. Duven,  
Manager,  
Transport Airplane Directorate,  
Aircraft Certification Service.

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